**Howard Florey Research Task**

*Sample Answer*

Howard Florey was an Australian pharmacologist and pathologist famous for his role in the making of penicillin with Sir Ernst Boris Chain and Sir Alexander Fleming. His discoveries have saved millions of lives.

Born in Adelaide, Australia in 1898, he was the youngest of 5 children. He was a talented student and junior sportsman and studied Medicine at the University of Adelaide from 1917 to 1921 and gained several academic qualifications before gaining a PhD at Cambridge University in England.

In 1935 he led a team of researchers at Oxford, working on extracting the active chemical compound from mould to create the first antibiotics.  
Sir Alexander Fleming had first observed the antibacterial properties of Penicillin but abandoned his research believing it was too difficult to extract and use in treating human infection.  
Florey shared the 1945 Nobel prize in Physiology with his research assistant Sir Ernst Chain and with Fleming.

  
Baron Howard Florey

Howard Florey’s work came at a time when resources, funding and even personal safety were difficult to secure due to World War 2. Because of this, 5 adjectives I would use to describe his work are: difficult, important, urgent, vital and experimental.

He wanted to make new scientific discoveries.  
He challenged existing ideas about research and pathology.  
He felt that pathology was due to abnormal physiology.  
He died knowing that he was responsible for saving millions of lives.

Antibacterial mould has been used throughout time as a treatment for infection such as Aboriginal people wrapping mouldy bark on wounds. The difficulty encountered with Penicillin was isolating it and making it available to administer to a person to fight infection inside their body. This was the problem that stopped Fleming’s research and was Florey’s major discovery. The advantage of this was that people with severe infections could now be saved and soldiers and civilians wounded in war could recover from their injuries without fear of infection or amputation. Millions of lives have been saved.

A disadvantage of Florey’s discovery and a concern of his own was the massive explosion in population created by such an advance in medicine. Due to this, he was a lifelong advocate of contraception and methods of population control.

The availability of penicillin affects society to this day by preventing infection and preventing deaths from those already suffering from bacterial infections. Without penicillin and other antibiotics, millions of people would have died from what we now consider simple infections. Many more people would have suffered horrific injuries, scarring and amputations as a consequence of their infection. Sir Robert Menzies, Australia’s longest serving Prime Minister described Florey as the most important man ever born in Australia.

<http://www.abc.net.au/science/slab/florey/story.htm>

<http://australia.gov.au/about-australia/australian-story/howard-florey>

<http://adb.anu.edu.au/biography/florey-howard-walter-10206>